

Name: _____

Exponential Quiz - Practice

<u>Expectation</u>	<u>Level Achieved</u>
A1 - evaluate powers with rational exponents, simplify algebraic expressions involving exponents, and solve problems involving exponential equations graphically and using common bases;	

1.) Use your exponent laws to simplify the following. Leave your answers with **positive exponents**.

$$5x^{-2} \bullet x^4 \qquad \frac{3x^{-5}}{x^2} \qquad \frac{6x^5 \bullet 4x^{-3}}{2x^{-2}}$$

$$3x^{-2} \bullet -4x^4 \qquad \frac{100x^5}{2x^{-2}} \qquad (-2x^{-4})^3$$

2) Write as a single exponent. (Do Not Evaluate)

$$\text{a) } (-3)^{-4} \times (-3)^{-5} \qquad \text{b) } (9^{-6})^2 \qquad \text{c) } 3^{17} \div 3^{-6}$$

Name: _____

3) Rearrange the following to **solve for x**

a) $V = P - X$

b) $T = 9 - 8X$

c) $3M = 9T + JX$

4) Write in radical form

$$x^{\frac{2}{7}}$$

$$y^{\frac{3}{8}}$$

$$5^{\frac{1}{7}}$$

$$9^{\frac{1}{2}}$$

5) Write in exponential form

$$\sqrt[2]{5^6}$$

$$\sqrt[3]{x^5}$$

$$\sqrt[9]{56^2}$$

$$\sqrt[p]{5^v}$$